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EXAMINER

BARNIE, REXFORD N

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/660,205

Applicant(s)

PARRY ET AL.

Examiner

REXFORD N BARNIE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 25 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*R N Barnie*

REXFORD BARNIE  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of [Hamilton et al. (US Pat# 5,764,759) or Wintour (US Pat# 5,987,098) or Holland et al. (US pat# 6,304,645) or Dunn et al. (US Pat# 6,580,793)] and further in view of Lewis et al. (US Pat# 6,389,440).

Regarding claims 1 and 34, Kinoshita et al. teaches a method for supporting communications among a plurality of communications terminals comprising the steps of receiving audio signals from communication terminals at a centralized location in (see figs. 6, 8, 16, 22), digital signal processing resources including echo cancellers,

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amplifiers, mixers in (see fig. 16) which would be assigned to audio signals, processing the audio signals according to certain parameters and formulating mixes and then sending them back to the respective terminals in (see fig. 16). Kinoshita fails to teach pooling and assigning resources based on availability.

It's well known in the art to pool and assign resources including signal processing resources based on availability.

Hamilton et al. teaches a call processing using line characteristics wherein resources including signal-processing resources can be assigned based on availability in (see col. 5). Furthermore, signals from a channel or line can be processed to reflect characteristics associated with it.

Wintour teaches a method and system for echo cancellation in 910 of fig. 1) which controls signal processing resources including echo cancellation in (see col. 5 lines 12-15, 46-55).

Holland et al. teaches a call processing system with resources on platforms in (see cols. 2, col. 3 line 61, col. 4) wherein resources can be polled for and allocated based on availability.

Dunn et al. teaches a method and apparatus for echo cancellation with self-deactivation in (see col. 4 line 25-60 and col. 8) wherein resources can be allocated based on availability and pooling.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching either one of the secondary references into that of Kinoshita in cases where they might be fewer resources than

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required, reduce cost associated with having to provide more resources, making it possible to control and set up services based on availability of resources in order to avoid interference and conflicts when utilizing resources during communication set up.

*The combination including Kinoshita teaches an echo canceler (see figs, col. 16 line 64-col. 17 line 15, col. 22) which would remove all echo including any feedback but for the sake of argument, the examiner has supplemented the combination with Lewis who teaches an acoustic feedback correction to be used in a conferencing facility including an echo cancellation and according to Lewis in (see cols. 1-2) feedback from a loudspeaker to a microphone is known to emit an echo and to combat this problem, an echo cancellation means including an adaptive filter can be used.*

*Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lewis into that of the combination thus making it possible to combat any known noise including echo caused by close proximity of a speaker and microphone to each other to enhance signal clarity in a conferencing facility.*

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Regarding claim 36, The combination renders obvious the idea of availability of resources.

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Claims 2-12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Hamilton et al. (US Pat# 5,764,759) or Wintour (US Pat# 5,987,098) or Holland et al. (US pat# 6,304,645) or Dunn et al. (US Pat# 6,580,793 and further in view of Lewis et al. (US Pat# 6,389,440) and Iizawa (US Pat# 6,008,838).

Regarding claims 2 and 22, The combination including Kinoshita fails to teach the claimed subject matter in detail but Iizawa teaches a multi-point system comprising of a decoding and encoding scheme in conjunction with an audio mixer in (see figs.). Furthermore, Iizawa teaches a level calculating circuit, level storage circuit, threshold storage section and so forth, which can be used in controlling processing of audio signals.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Iizawa thus making it able to process incoming and outgoing digital signals in for instance a multi-media environment.

Regarding claims 3-9, the combination fails to teach the claimed subject matter in detail comprising of decoding and encoding schemes in conjunction with an audio mixer. Iizawa teaches a conference system with encoding and decoding circuit in addition to an audio mixer for conference calling in (see figs.). Furthermore, Iizawa teaches a level calculating means, level storage section and so forth, which can be used in controlling parameters, associated with different terminal at different locations (rooms).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Scordo into that of Kinoshita thus making it possible to control effectively the processing of signals to the various terminals based on parameters settings and so forth.

Regarding claims 10-12, The combination teaches an echo cancellation means in (see 26 of fig. 16 and AMP of fig. 16 of Kinoshita).

Claims 3-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Hamilton et al. (US Pat# 5,764,759) or Wintour (US Pat# 5,987,098) or Holland et al. (US pat# 6,304,645) or Dunn et al. (US Pat# 6,580,793) and further in view of Lewis et al. (US Pat# 6,389,440) and Scordo (US Pat# 4,558,180).

Regarding claims 3-9 and 18, The combination fails to teach the claimed subject matter in detail but Scordo teaches a programmable audio mixer in (see fig. 1) with room controls, audio detectors, a bridge and a microprocessor which can be used in controlling acoustic properties of communications in (see fig. 1, col. 1 lines 38-45 and disclosure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Scordo into that of Kinoshita thus making it possible to control effectively the processing of signals to the various terminals based on parameters settings and so forth.

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Regarding claims 10-12, The combination teaches an echo cancellation means in (see 26 of fig. 16 and AMP of fig. 16 of Kinoshita).

Regarding claims 13-14, the combination including Kinoshita teaches controlling of amplification of signals and Scordo teaches determining allocation of resources to terminals involved in a communication session and would have been obvious to one of ordinary skill in the art at the time the invention was made to control allocation of resources to the terminals as taught by the combination.

Regarding claims 15-16, The combination teaches using time delay and so forth in (see Scordo, Kinoshita).

Claims 17, 19-21, 24-25 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Sastry et al. (US pat# 6,694,373) or Wintour (US Pat# 5,987,098) and further in view of Lewis et al. (US Pat# 6,389,440).

Regarding claims 17 and 34, Kinoshita et al. teaches a method for supporting communications among a plurality of communications terminals comprising the steps of receiving audio signals from communication terminals at a centralized location in (see figs. 6, 8, 16, 22), digital signal processing resources including echo cancellers, amplifiers, mixers in (see fig. 16) which would be assigned to audio signals, processing the audio signals according to certain parameters and formulating mixes and then sending them back to the respective terminals in (see fig. 16). Kinoshita teaches a communication support module including means (14C, 20 of fig. 16) and signal



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processing modules (36, 26 and so forth). Kinoshita fails to teach pooling and assigning resources based on availability.

Sastry et al. teaches a communication system which includes a plurality of resource modules (430 of fig. 4) under the control of a control means (460 of figs. 4, 600 of fig. 6) wherein resource allocation can be performed including echo cancellation in (see col. 3 lines 15-30, col. 4 lines 32-46, 57-63, col. 5 lines 10-27).

Wintour teaches a communication system wherein a centralized module (10) can control a plurality of resources and select resource module processing based on availability (see col. 5 lines 46-55, lines 13-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching either one of the secondary references into that of Kinoshita in cases where they might be fewer resources than required, reduce cost associated with having to provide more resources, making it possible to control and set up services based on availability of resources in order to avoid interference and conflicts when utilizing resources during communication set up.

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*The combination including Kinoshita teaches an echo canceler (see figs, col. 16 line 64-col. 17 line 15, col. 22) which would remove all echo including any feedback but for the sake of argument, the examiner has supplemented the combination with Lewis who teaches an acoustic feedback correction to be used in a conferencing facility including an echo cancellation and according to Lewis in (see cols. 1-2) feedback from a loudspeaker to a microphone is known to emit an echo and to combat this problem, an echo cancellation means including an adaptive filter can be used.*

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*Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lewis into that of the combination thus making it possible to combat any known noise including echo caused by close proximity of a speaker and microphone to each other to enhance signal clarity in a conferencing facility.*

Regarding claims 19-21, the combination including Kinoshita teaches echo cancellation and amplification of signals.

Regarding claims 24-25, The combination teaches allocation of resources for signal processing by a control module.

Regarding claim 35, the combination including Sastry teaches the claimed subject matter. It's known to allocate for internet telephony and voice data communication.

Regarding claim 36, The combination renders obvious the idea of availability of resources

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Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Sastry et al. (US pat# 6,694,373) or Wintour (US Pat# 5,987,098) and further in view of of Lewis et al. (US Pat# 6,389,440) and Scordo (US Pat# 4,558,180).

Regarding claim 18, The combination fails to teach the claimed subject matter in detail but Scordo teaches a programmable audio mixer in (see fig. 1) with room controls, audio detectors, a bridge and a microprocessor which can be used in

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controlling acoustic properties of communications in (see fig. 1, col. 1 lines 38-45 and disclosure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Scordo into that of Kinoshita thus making it possible to control effectively the processing of signals to the various terminals based on parameters settings and so forth.

Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Sastry et al. (US pat# 6,694,373) or Wintour (US Pat# 5,987,098) and further in view of Lewis et al. (US Pat# 6,389,440) and Iizawa (US Pat# 6,008,838)

Regarding claims 22 and 23, the combination fails to teach the claimed subject matter but Iizawa teaches a multi-point system comprising of a decoding and encoding scheme in conjunction with an audio mixer in (see figs.). Furthermore, Iizawa teaches a level calculating circuit, level storage circuit, threshold storage section and so forth, which can be used in controlling processing of audio signals.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Iizawa thus making it able to process incoming and outgoing digital signals in for instance a multi-media environment.

Claims 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Scordo (US Pat# 4,558,180) and further in view of Lewis et al. (US Pat# 6,389,440).

Regarding claim 26, Kinoshita et al. teaches a method for supporting communications among a plurality of communications terminals comprising the steps of receiving audio signals from communication terminals at a centralized location in (see figs. 6, 8, 16, 22), digital signal processing resources including echo cancellers, amplifiers, mixers in (see fig. 16) which would be assigned to audio signals, processing the audio signals according to certain parameters and formulating mixes and then sending them back to the respective terminals in (see fig. 16).. Note that each terminal can be controlled based on parameters settings and the terminals could be located in a room or at site. For the sake of argument, Kinoshita fails to teach a 'room module'.

Scordo teaches a conference system with a programmable audio mixer in (see fig. 1) with room controls, audio detectors, a bridge and a microprocessors which can be used in controlling acoustic properties of communications in (see fig. 1, col. 1 lines 38-45 and disclosure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Scordo into that of Kinoshita thus making it possible to control effectively the processing of signals to the various terminals based on parameters settings and so forth.

*The combination including Kinoshita teaches an echo canceler (see figs, col. 16 line 64-col. 17 line 15, col. 22). which would remove all echo including any feedback but*

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*for the sake of argument, the examiner has supplemented the combination with Lewis who teaches an acoustic feedback correction to be used in a conferencing facility including an echo cancellation and according to Lewis in (see cols. 1-2) feedback from a loudspeaker to a microphone is known to emit an echo and to combat this problem, an echo cancellation means including an adaptive filter can be used.*

*Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lewis into that of the combination thus making it possible to combat any known noise including echo caused by close proximity of a speaker and microphone to each other to enhance signal clarity in a conferencing facility.*

Regarding claims 27-30, the combination including Kinoshita teaches echo cancellation, mixing module and amplification.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Scordo (US Pat# 4,558,180) and further in view of Lewis et al. (US Pat# 6,389,440) and Iizawa (US Pat# 6,008,838).

Regarding claim 31, The combination fails to teach the claimed subject matter in detail but Iizawa teaches a multi-point system comprising of a decoding and encoding scheme in conjunction with an audio mixer in (see figs.). Furthermore, Iizawa teaches a level calculating circuit, level storage circuit, threshold storage section and so forth, which can be used in controlling processing of audio signals.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of lizawa thus making it able to process incoming and outgoing digital signals in for instance a multi-media environment.

Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US Pat# 5,734,724) in view of Scordo (US Pat# 4,558,180) and further in view of Lewis et al. (US Pat# 6,389,440) and Hamilton et al. (US Pat# 5,764,759) or Wintour (US Pat# 5,987,098) or Holland et al. (US pat# 6,304,645) or Dunn et al. (US Pat# 6,580,793).

Regarding claims 32-33, The combination fails to teach the claimed subject matter.

Hamilton et al. teaches a call processing using line characteristics wherein resources including signal-processing resources can be assigned based on availability in (see col. 5). Furthermore, signals from a channel or line can be processed to reflect characteristics associated with it.

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Wintour teaches a method and system for echo cancellation in (10 of fig. 1) which controls signal processing resources including echo cancellation in (see col. 5 lines 12-15, 46-55).

Holland et al. teaches a call processing system with resources on platforms in (see cols. 2, col. 3 line 61, col. 4) wherein resources can be polled for and allocated based on availability.

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Dunn et al. teaches a method and apparatus for echo cancellation with self-deactivation in (see col. 4 line 25-60 and col. 8) wherein resources can be allocated based on availability and pooling.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching either one of the secondary references into that of Kinoshita in cases where they might be fewer resources than required, reduce cost associated with having to provide more resources, making it possible to control and set up services based on availability of resources in order to avoid interference and conflicts when utilizing resources during communication set up.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **REXFORD N BARNIE** whose telephone number is (703)306-2744. The examiner can normally be reached on M-F 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRIMARY EXAMINER  
REXFORD BARNIE  
11/20/04

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